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ART UNIT	**PAPER NUMBER**
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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/761,411	TOMSEN ET AL.	
	Examiner	Art Unit	
	Scott Beliveau	2614	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 February 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-4,6-34 and 36-62* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-4,6-34 and 36-62* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Priority

1. Applicant's claim for domestic priority under 35 U.S.C. 119(e) is acknowledged. However, the provisional application 60/246,542 upon which priority is claimed fails to provide adequate support under 35 U.S.C. 112 for claims 1-4, 6-34 and 36-62 of this application. The '542 provisional application fails to disclose a method and system for selectively retrieving and displaying supplemental content related to a television program being displayed as claimed. In particular, the earlier filling fails to clearly disclose or suggest the step of "in response to detecting a channel change . . . ". Provisional application no. 60/258,164, however, provides support for the aforementioned claims. Accordingly, the application shall receive the benefit of the '164 provisional application and claims 1-4, 6-34 and 36-62 shall be examined on the basis of 22 December 2000.

Response to Arguments

2. The OFFICIAL NOTICE stating that periodically replacing cached supplemental content according to a least recently used (LRU) algorithm is notoriously well known in the art was not traversed and is accordingly taken as an admission of the fact noted.

3. Applicant's arguments with respect to claims 1-4, 6-34 and 36-62 have been considered but are moot in view of the new ground(s) of rejection as necessitated by applicant's amendment.

With respect to applicant's arguments that the particular process is not being performed responsive to a channel change, the examiner respectfully disagrees. Brodsky discloses the

pre-processing or retrieval of additional information based on a change in the television programming seen or heard. As is commonly known in the art, televisions are capable of changing channels. The newly applied Landis et al. reference is introduced to further reinforce the particular concept that contextual information such as that associated with closed caption data is re/obtained responsive to a channel change. Therefore, in response to changing channels, a viewer would be watching/listening to a different program and responsive to the change in television programming, the Brodsky system would pre-process and pre-cache additional information.

With respect to applicant's arguments pursuant to the Wu failing to teach or suggest the particular retrieval of supplemental content in response to a channel change, the examiner respectfully disagrees. In particular, applicant's arguments are based upon the fact that the particular contextual information is not necessarily obtained in response to as opposed to at some unspecified time after a channel change. Wu states that "the system is able to provide new links to new web pages associated with corresponding new portions of video data received when the user selects a new channel" (Wu: Col 11, Lines 14-17). The cited passage does not state that new information is received at some unspecified time after a channel change, but rather suggests a direct correspondence between the activities. If the contextual information was retrieved at some unspecified time after a channel change, the user would not receive the new information corresponding to that contextual information when the user selects a new channel. Accordingly, it is the examiner's position that the particular limitation is met. However, assuming arguendo, that the particular contextual information was not obtained until after some unspecified time after a channel change, the

mere fact that it is retrieved at some point following channel change or as a result of the fact that the user changed channels, as noted in applicant's arguments, would still meet the claimed limitation given that it would logically follow that obtaining contextual information was in response to or resulting from the fact that the channel changed in the first place. The claims do not require that the operation of obtaining contextual information is directly in response to the user changing the channel as opposed be being indirectly involved.

Claim Objections

4. Claim 31 is objected to because the programs "the context information" should read "the contextual information" for proper antecedence. Appropriate correction is required.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 1-3, 6-8, 10, 14, 15, 22, 23, 61, and 62 are rejected under 35 U.S.C. 103(a) as being unpatentable over Landis et al. (US Pat No. 5,428,400) in view of Brodsky (US Pat No. 5,809,471).

In consideration of claim 1, the Landis et al. reference discloses a method wherein a television receiver (Col 7, Lines 8-12) "in response to detecting a channel change by the . . . television system, obtains contextual information pertaining to the television program" such

as closed captioning information and alerts the user to its availability (Figure Col 4, Lines 38 – Col 5, Line 53). The reference, however, is silent with respect to the receiver further retrieving supplemental content related to the contextual information and further pre-caching that information.

In an analogous art relating to interactive television systems, the Brodsky reference illustrates a system [100] which implements a "method for pre-caching an interactive television system with supplemental content related to a television program being displayed by the interactive television system" (Abstract). The system "obtains contextual information pertaining to the television program" in association with the detection and construction of the dynamic vocabulary of search terms extracted from the received closed captioning text (Col 4, Lines 37-61). The system subsequently "automatically sends an information request [comprising the contextual information] to a content source" [112] such as a local or remote database (Col 6, Lines 29-32) "for supplemental content related to the television program prior to receiving a subsequent user request for such supplemental content" and "in response to the content source identifying any supplemental content related to the television program being displayed based upon the contextual information, retrieving the supplemental content from the content source, and pre-caching the retrieved supplemental content in the interactive television system for display in response to the subsequent user request" to access the aforementioned information (Col 5, Lines 1-35; Col 5, Line 64 – Col 6, Line 11). Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made so as to modify Landis et al. such that "in response to detecting a channel change" to retrieve contextual information such as that associated with closed

captioning data and to further utilize such as taught by Brodsky for the purpose of advantageously providing a user receiving a video and/or audio transmission more supporting information and to further pre-process that information in order to decrease system response time in anticipation of user's request for supporting information (Brodsky: Col 1, Lines 14-16; Col 5, Line 64 – Col 6, Line 6)

Claim 2 is rejected wherein "in response to the subsequent user request to find supplemental content related to the television program being displayed" the system "displays the pre-cached supplemental content using the interactive television system" (Brodsky: Col 5, Lines 11-35; Col 6, Lines 12-42).

Claim 3 is rejected wherein "in response to the subsequent user request to find supplemental content related to the television program being displayed" the system "displays a list of pre-cached supplemental content items retrieved from the content source, receives a user selection of a supplemental content item from the list, and displays the selected supplemental content item using the interactive television system" (Brodsky: Col 5, Lines 11-35; Col 6, Lines 12-42).

Claim 6 is rejected wherein Brodsky implicitly "repeats the sensing, retrieving, and storing steps at period intervals prior to receiving the user request while the television program is being displayed by the interactive television systems" in conjunction with the extraction, buffering, and preprocessing of the dynamically changing dictionary of search terms based upon the progression of the television program.

Claims 7 and 8 are rejected wherein the contextual information comprises an indication of the television program being displayed which is subsequently "read . . . from vertical

blanking interval (VBI) data associated with the television program" (Brodsky: Col 5, Lines 36-47).

Claim 10 is rejected wherein the system "searches the content source" associated with either a local or remote database "for supplemental content related to the indication of the television program" (Brodsky: Col 5, Lines 3-10).

Claims 14 and 15 are rejected wherein the "contextual information comprises at least one keyword obtained from closed-captioning text associated with the television program" wherein the system subsequently "searches the content source for supplemental content comprising the at least one keyword" (Col 4, Lines 4-9; Col 5, 37-47)

Claims 22 and 23 are rejected wherein the system further "displays the supplemental content simultaneously with the television program in response to the subsequent user request" in a manner which "reduces the size of the displayed television program relative to the size of the displayed supplemental content" (Brodsky: Col 5, Lines 21-35).

Claims 61 and 62 are rejected wherein Brodsky is considered to "periodically replaces pre-cached supplemental content according to a replacement algorithm" wherein the "replacement algorithm comprises a least recently used (LRU) algorithm" in association with managing the capacity of the buffer such that it reflects the most recently extracted or used keywords and associated supplemental content (Col 4, Lines 48-61). In particular, it is the examiner's interpretation that Brodsky inherently utilizes a replacement algorithm such as a LRU algorithm given that if such were not utilized it would require an infinite resident storage capacity to continuously buffer supplemental content retrieved by the user's television equipment. Brodsky, however, makes numerous references to the user's

equipment having a limited resident storage capacity which would require some form of replacement algorithm be used or else the device would cease to operate to provide the user with supplemental content for recently watched television programming. Furthermore, since pre-cached content, as disclosed by Brodsky, is only retrieved via a list of valid terms (which are replaced using a LRU algorithm), it would logically follow that the removal of terms would coincide with the removal of cached content since the term is no longer a potential user request by virtue of being removed from the list of valid entries.

In the alternative, applicant's admission of fact provides evidence that periodically replacing cached supplemental content according to a least recently used (LRU) algorithm is notoriously well known in the art. Accordingly, it would have been obvious to one having ordinary skill in the art to modify Brodsky, if necessary, to "periodically replaces pre-cached supplemental content according to a replacement algorithm" wherein the "replacement algorithm comprises a least recently used (LRU) algorithm" for the purpose of advantageously providing a means to manage the resident storage capacity of the user's television equipment.

7. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Landis et al. (US Pat No. 5,428,400), in view of Brodsky (US Pat No. 5,809,471), and in further view of Dodson et al. (US Pat No. 6,184,877).

In consideration of claim 4, the Brodsky reference discloses that the user is operable to utilize a user interface [110] so as to make requests for the application to provide a list of search topics through a button selection (Col 5, Lines 11-20) and to retrieve or pre-cache the supplemental content as aforementioned. The reference, however, does not particularly

disclose that the "user request is received in response to a user activating a specifically-designated button on a remote control device for the interactive television system". In a related art pursuant to performing search operation so as to retrieve related content, the Dodson et al. reference discloses that it is known in the art to actuate a "user request" for supplemental content related to a television program "in response to a user activating a specifically-designated button on a remote control device for the interactive television system" [212'/218']. Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made so as to utilize a remote control comprising a "specifically-designated button" with Brodsky for the purpose of providing an easily recognizable means so as to actuate a search operation remotely.

8. Claims 9, 11-13, 21, 24, 26, 28, 29, 31-33, 36-45, 51-54, and 56-59 are rejected under 35 U.S.C. 103(a) as being unpatentable over Landis et al. (US Pat No. 5,428,400), in view of Brodsky (US Pat No. 5,809,471), and in further view of Wu et al. (US Pat No. 6,326,982).

In consideration of claim 9, the Brodsky reference suggests that it is desirable to retrieve additional video data services for searching, locating and importing information to satisfy a user's request (Col 5, Lines 39-44). Furthermore, the reference suggests the particular further usage of a static portion of the memory relating to program content that is relevant for the duration of the presentation (Col 7, Lines 2-7). The combined references, however, do not particularly disclose that the step of "obtaining comprises reading the indication of the television program from electronic programming guide (EPG) data associated with the television program". In an analogous art pertaining to interactive television systems, the Wu et al. reference discloses "in response to detecting a channel change" [236] (Figure 9B) to

further "obtain contextual information pertaining to the television program" including "reading an the indication of the television program from electronic programming guide (EPG) data associated with the television program" [240] (Wu et al.: Col 8, Line 52-27; Col 10, Lines 1-13). Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made so as to modify Brodsky so as to further "obtain contextual information" utilizing a supplemental source such as the "electronic program guide" for the purpose of utilizing other available video data services as taught by Wu et al. in order to obtain additional contextual information regarding a television program in a manner that does not require for the encoding of internet information within a television signal (Wu et al.: Col 1, Lines 9-12; Col 2, Lines 11-16).

Claim 11 is rejected wherein "the contextual information comprises a time index" (Wu et al.: Col 9, Lines 12-27).

Claim 12 is rejected wherein the "time index indicates a time at which the information request is automatically sent" (Wu et al.: Col 9, Lines 12-27).

Claim 13 is rejected wherein the method further comprises "searching the content source for supplemental content related to a particular time segment of the television program based upon the time index" (Wu et al.: Col 9, Lines 28-40; Col 10, Lines 14-37)

Claim 21 is rejected wherein "the contextual information comprises an indication of a channel being displayed" which is subsequently "used . . . to identify a content source to receive the information request" (Wu et al.: Col 9, Lines 28-40; Col 10, Lines 64 – Col 11, Line 2).

In consideration of claim 24, as aforementioned, Brodsky discloses that it is advantageous to pre-process or cache supplemental content. Brodsky also appreciates that the particular amount of storage space is limited and that prioritization may be utilized in conjunction with the preprocessing of content (Brodsky: Col 6, Lines 3-11). The reference, however, does not particularly disclose nor preclude the usage of "user preferences" in connection with determining what information related to the television program should be retrieved for presentation to the user. The Wu et al. reference discloses the particular usage of "filtering the supplemental content according to a set of user preferences" such that targeted information is provided (Wu et al.: Col 10, Lines 22-63). Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made so as to modify the Brodsky reference so as to employ "user preferences" in associated with "determining which supplemental content is to be pre-cached prior to receiving the user request" for the purpose of advantageously providing the user with supplemental information which is not only relevant to the current programming being displayed, but is also of personalized interest to particular user. For example, retrieving and caching a large index of topics corresponding to a broad topic wherein the user associated with the system has previously expressed an interest in a particular subset of associated with the topic would result in an inefficient usage of the limited storage space of the Brodsky system.

Claim 26 is rejected wherein "the information request comprises an identifier of the interactive television system, and wherein the user preferences are stored at the content source and accessed using the identifier of the interactive television system" (Wu et al.: Col 10, Lines 22-63).

Claim 28 is rejected wherein "at least one user preference indicates a type of supplemental content preferred by the user" (Wu et al.: Col 6, Lines 15-33; Col 7, Lines 1-10).

Claim 29 is rejected wherein "at least one user preference indicates a source of supplemental content preferred by the user" according to their particular profile (Wu et al.: Col 10, Lines 22-63).

In consideration of claim 31, the Landis et al. reference discloses a system including a television receiver (Col 7, Lines 8-12) or "set top box configured to sense a change in the television program being displayed and in response to detecting the channel change, to obtain contextual information pertaining to the television program" such as closed captioning information and to alert the user to its availability (Figure Col 4, Lines 38 – Col 5, Line 53). The reference, however, is silent with respect to the receiver further retrieving supplemental content related to the contextual information and further pre-caching that information.

In an analogous art relating to interactive television systems, the Brodsky reference illustrates a "system" [100] including a "display" [108] and "storage" [112] for "pre-caching an interactive television system with supplemental content related to a television program being displayed" (Abstract). The system "obtains contextual information pertaining to the television program" in association with the detection and construction of the dynamic vocabulary of search terms (Col 4, Lines 37-61). The system subsequently "automatically sends an information request [comprising the contextual information] to a content source" [112] such as a local or remote database (Col 6, Lines 29-32) "for supplemental content related to the television program prior to receiving a subsequent user request for such

supplemental content" and "in response to the content source identifying any supplemental content related to the television program being displayed based upon the contextual information, retrieving the supplemental content from the content source, and pre-caching the retrieved supplemental content in the interactive television system for display in response to the subsequent user request" to access the aforementioned information (Col 5, Lines 1-35; Col 5, Line 64 – Col 6, Line 11). Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made so as to modify Landis et al. such that "in response to detecting a channel change" to retrieve contextual information such as that associated with closed captioning data and to further utilize such as taught by Brodsky for the purpose of advantageously providing a user receiving a video and/or audio transmission more supporting information and to further pre-process that information in order to decrease system response time in anticipation of user's request for supporting information (Brodsky: Col 1, Lines 14-16; Col 5, Line 64 – Col 6, Line 6)

While the Brodsky reference suggests that it is desirable to retrieve and employ additional video data services for searching, locating and importing information to satisfy a user's request (Col 5, Lines 39-44) and to retrieve or pre-cache the supplemental content, the reference is silent as to the "contextual information comprising a time index". The reference, however, suggests the particular further usage of a static portion of the memory relating to program content that is relevant for the duration of the presentation (Col 7, Lines 2-7). In an analogous art pursuant to performing search operation so as to retrieve content related to television programming, the Wu et al. reference discloses that is it known in the art so as to "obtain contextual information pertaining to the television program" wherein the "contextual

information comprises a time index" (Wu et al.: Col 9, Lines 12-40). Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made so as to modify Brodsky so as to further "obtain contextual information pertaining to the television program" wherein the "contextual information comprises a time index" for use in obtaining contextual information for the purpose of utilizing other available video data services in order to obtain additional supplemental information regarding a television program based upon television program schedule information in a manner that does not require for the encoding of internet information within a television signal (Wu et al.: Col 1, Lines 9-12; Col 2, Lines 11-16).

Claim 32 is rejected wherein "in response to the subsequent user request to find supplemental content related to the television program being displayed" the system "displays the pre-cached supplemental content using the interactive television system" (Brodsky: Col 5, Lines 11-35; Col 6, Lines 12-42).

Claim 33 is rejected wherein "in response to the subsequent user request to find supplemental content related to the television program being displayed" the system "displays a list of pre-cached supplemental content items retrieved from the content source, receives a user selection of a supplemental content item from the list, and displays the selected supplemental content item using the interactive television system" (Brodsky: Col 5, Lines 11-35; Col 6, Lines 12-42).

Claim 36 is rejected wherein Brodsky implicitly "repeats the sensing, retrieving, and storing steps at period intervals prior to receiving the user request while the television program is being displayed by the interactive television systems" in conjunction with the

extraction, buffering, and preprocessing of the dynamically changing dictionary of search terms based upon the progression of the television program and/or changing of the television programming being watched.

Claims 37 and 38 are rejected wherein the contextual information comprises an indication of the television program being displayed which is subsequently "read . . . from vertical blanking interval (VBI) data associated with the television program" (Brodsky: Col 5, Lines 36-47).

In consideration of claim 39, the Brodsky reference suggests that it is desirable to retrieve additional video data services for searching, locating and importing information to satisfy a user's request (Col 5, Lines 39-44). The reference further suggests the particular further usage of a static portion of the memory relating to program content that is relevant for the duration of the presentation (Col 7, Lines 2-7). The combined references, however, do not particularly disclose that the step of "obtaining comprises reading the indication of the television program from electronic programming guide (EPG) data associated with the television program". In an analogous art pertaining to interactive television systems, the Wu et al. reference discloses "in response to detecting a channel change" [236] (Figure 9B) to further "obtain contextual information pertaining to the television program" including "reading an the indication of the television program from electronic programming guide (EPG) data associated with the television program" [240] (Wu et al.: Col 8, Line 52-27; Col 10, Lines 1-13). Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made so as to modify Brodsky so as to further "obtain contextual information" utilizing a supplemental source such as the "electronic program

guide" for the purpose of utilizing other available video data services as taught by Wu et al. in order to obtain additional contextual information regarding a television program in a manner that does not require for the encoding of internet information within a television signal (Wu et al.: Col 1, Lines 9-12; Col 2, Lines 11-16).

Claim 40 is rejected wherein the system "searches the content source" associated with either a local or remote database "for supplemental content related to the indication of the television program" (Brodsky: Col 5, Lines 3-10).

Claim 41 is rejected wherein the "time index indicates a time at which the change in the television program being displayed was sensed" (Wu et al.: Col 9, Lines 12-27).

Claim 42 is rejected wherein the "time index indicates a time at which the information request is automatically sent" (Wu et al.: Col 9, Lines 12-27).

Claim 43 is rejected wherein the method further comprises "searching the content source for supplemental content related to a particular time segment of the television program based upon the time index" (Wu et al.: Col 9, Lines 28-40; Col 10, Lines 14-37)

Claims 44 and 45 are rejected wherein the "contextual information comprises at least one keyword obtained from closed-captioning text associated with the television program" wherein the system subsequently "searches the content source for supplemental content comprising the at least one keyword" (Brodsky: Col 4, Lines 4-9; Col 5, 37-47).

Claim 51 is rejected wherein "the contextual information comprises an indication of a channel being displayed" which is subsequently "used . . . to identify a content source to receive the information request" (Wu et al.: Col 9, Lines 28-40; Col 10, Lines 64 – Col 11, Line 2).

Claims 52 and 53 are rejected wherein the system further "displays the supplemental content simultaneously with the television program in response to the subsequent user request" in a manner which "reduces the size of the displayed television program relative to the size of the displayed supplemental content" (Brodsky: Col 5, Lines 21-35).

In consideration of claim 54, as aforementioned, Brodsky discloses that it is advantageous to pre-process or cache supplemental content. Brodsky also appreciates that the particular amount of storage space is limited. The reference, however, does not particularly disclose nor preclude the usage of "user preferences" in connection with determining what information related to the television program should be retrieved for presentation to the user. The Wu et al. reference discloses the particular usage of "filtering the supplemental content according to a set of user preferences" (Wu et al.: Col 10, Lines 22-63). Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made so as to modify the Brodsky reference so as to employ "user preferences" in associated with "determining which supplemental content is to be pre-cached prior to receiving the user request" for the purpose of advantageously providing the user with supplemental information which is not only relevant to the current programming being displayed, but is also of personalized interest to particular user. For example, retrieving and caching a large index of topics corresponding to a broad topic wherein the user associated with the system has previously expressed an interest in a particular subset of associated with the topic would result in an inefficient usage of the limited storage space of the Brodsky system.

Claim 56 is rejected wherein "the information request comprises an identifier of the interactive television system, and wherein the user preferences are stored at the content source and accessed using the identifier of the interactive television system" (Wu et al.: Col 10, Lines 22-63).

Claim 57 is rejected wherein "at least one user preference indicates a type of supplemental content to exclude" by virtue of specifying which content to include (ex. a personalized stock market ticker excludes those companies for which the user is not interested/tracking).

Claim 58 is rejected wherein "at least one user preference indicates a type of supplemental content preferred by the user" (Wu et al.: Col 6, Lines 15-33; Col 7, Lines 1-10).

Claim 59 is rejected wherein "at least one user preference indicates a source of supplemental content preferred by the user" according to their particular profile (Wu et al.: Col 10, Lines 22-63).

9. Claim 34 is rejected under 35 U.S.C. 103(a) as being unpatentable over Landis et al. (US Pat No. 5,428,400), in view of Brodsky (US Pat No. 5,809,471), in view of Wu et al. (US Pat No. 6,326,982), and in further view of Dodson et al. (US Pat No. 6,184,877).

In consideration of claim 34, the Brodsky reference discloses that the user is operable to utilize a user interface [110] so as to make requests for the application to provide a list of search topics through a button selection (Col 5, Lines 11-20) and to retrieve or pre-cache the supplemental content as aforementioned. The reference, however, does not particularly disclose that the "user request is received in response to a user activating a specifically-

designated button on a remote control device for the interactive television system". In a related art pursuant to performing search operation so as to retrieve related content, the Dodson et al. reference discloses that it is known in the art to actuate a "user request" for supplemental content related to a television program "in response to a user activating a specifically-designated button on a remote control device for the interactive television system" [212'/218']. Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made so as to utilize a remote control comprising a "specifically-designated button" with Brodsky for the purpose of providing an easily recognizable means to actuate a search operation remotely.

10. Claims 16-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Landis et al. (US Pat No. 5,428,400), in view of Brodsky (US Pat No. 5,809,471), in view of the "Encyclopedia Britannica Online" article, and in further view of Mighdoll et al. (US Pat No. 5,918,013).

In consideration of claims 16 and 17, as aforementioned, the Brodsky reference discloses that the particular database from which supplemental content may be retrieved may be remote or local databases which comprise encyclopedias. The reference, however, does not explicitly disclose nor preclude the usage of Internet based encyclopedias as a source of information. The "Encyclopedia Britannica Online" article provides evidence as to the existence of remotely accessible encyclopedias since 1994. Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made so as to modify Brodsky so as to employ a remote Internet based encyclopedia such as that provided

by "Encyclopedia Britannica Online" for the purpose of utilizing a remote database which includes one of the most comprehensive and highly rated online encyclopedias.

However, the particular usage of an Internet based encyclopedia in conjunction with the Brodsky reference does not particularly disclose or suggest the claimed limitation. The Mighdoll et al. reference discloses a system for caching requested Internet based content in order to improve response times associated with the retrieval and display of information. In particular, the reference discloses that "in response to supplemental content . . . not being found at the content source" or local proxy "the system searches a global information network for supplemental content. . . and retrieves the supplemental content from the global information network for storage in the interactive television system" (Figure 6; Col 8, Line 28 – Col 10, Line 54). Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made so as to modify the combined teachings so as to employ a tiered retrieval process involving caching at a local "content source" wherein if a particular request cannot be locally fulfilled then a "global infrastructure" request is relied upon for the purpose of improving latency requirements associated with the download of requested documents associated with the preprocessing of (Mighdoll et al.: Col 1, Line 54 – Col 2, Line 7).

In consideration of claims 18-20, the combined references in conjunction with an "information request" by the "interactive television system" so as to particularly retrieve articles via an Internet based do not explicitly disclose nor preclude that the "the identifier comprises one of a media access control (MAC) address and in Internet protocol (IP) address" which subsequently facilitates "sending the identified from the supplemental

content from the content source to an interactive television system associated with the identifier". Applicant's admission of fact provides evidence as to the usage of "one of a media access control (MAC) address and in Internet protocol (IP) address" in connection with routing information to client terminals is notoriously well known in the art. Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made so as to employ "one of a media access control (MAC) address and in Internet protocol (IP) address" in connection with the "information request . . . of the interactive television system" for the purpose of providing a means for "sending the identified supplemental content from the content source to an interactive television system associated with the identifier" in accordance to the standard TCP/IP protocol utilized by the Internet.

11. Claims 24, 25, 27, and 30 and are rejected under 35 U.S.C. 103(a) as being unpatentable over Landis et al. (US Pat No. 5,428,400), in view of Brodsky (US Pat No. 5,809,471), and in further view of Reese (US Pat No. 6,374,237).

In consideration of claim 24, as aforementioned, the Brodsky reference does not explicitly disclose nor preclude the particular usage of "user preferences" in connection with filtering the retrieved supplemental content for "pre-caching" in order to ensure that the user has immediate access to the requested information. In analogous art pertaining to searching and retrieving supplemental content, the Reese reference discloses a system and method that utilizes "user preferences", the Reese reference discloses a method for utilizing "user preferences" in conjunction with performing a search operation (Reese: Col 1, Lines 55-63). Accordingly, it would have been obvious to one having ordinary skill in the art at the time

the invention was made to modify Brodsky so as to employ "user preferences" in associated with "determining which supplemental content is to be pre-cached prior to receiving the user request" for the purpose of advantageously providing the user with supplemental information which is not only relevant to the current programming being displayed, but is also of particularly meaningful to the user (Reese: Col 1, Lines 22-39). For example, taken in combination, a user requesting further information on "France" would subsequently receive supplemental content advantageously relevant to the user's demographics pursuant to the topic of France (Reese: Col 4, Lines 35-47).

Claims 25 and 27 are rejected wherein "the set of user preferences is included with the information request" (Reese: Col 1, Lines 55-63) which further serve to implicitly "indicate a type of supplemental content to exclude" or those documents that do not match that user's preferences.

In consideration of claim 30, the Reese reference discloses the usage of "at least one user preference stored in response to historical analysis of user selections of supplemental content" to be used for filtering responses in accordance with a profile when responding to a user generated search request (Col 2, Lines 49-65; Col 3, Lines 20-32 and 45-58; Col 8, Lines 26-53). Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made so as to use "at least one user preference stored in response to historical analysis of user selections of supplemental content" in conjunction with Brodsky pre-cached retrieval for the purpose of providing means for filtering retrieved search results into a format that is more meaningful to the user (Reese: Col 1, Lines 22-51).

12. Claim 34 is rejected under 35 U.S.C. 103(a) as being unpatentable over Landis et al. (US Pat No. 5,428,400), in view of Brodsky (US Pat No. 5,809,471), in view of Wu et al. (US Pat No. 6,326,982), and in further view of Dodson et al. (US Pat No. 6,184,877).

In consideration of claim 34, the Brodsky reference discloses that the user is operable to utilize a user interface [110] so as to make requests for the application to provide a list of search topics through a button selection (Col 5, Lines 11-20) and to retrieve or pre-cache the supplemental content as aforementioned. The combined references, however, do not particularly disclose that the "user request is received in response to a user activating a specifically-designated button on a remote control device for the interactive television system". In a related art pursuant to performing search operation so as to retrieve related content, the Dodson et al. reference discloses that it is known in the art to actuate a "user request" for supplemental content related to a television program "in response to a user activating a specifically-designated button on a remote control device for the interactive television system" [212'/218']. Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made so as to utilize a remote control comprising a "specifically-designated button" with Brodsky for the purpose of providing an easily recognizable means so as to actuate a search operation remotely.

13. Claims 46-50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Landis et al. (US Pat No. 5,428,400), in view of Brodsky (US Pat No. 5,809,471), in view of Wu et al. (US Pat No. 6,326,982), and in further view of Mighdoll et al. (US Pat No. 5,918,013).

In consideration of claims 46 and 47, Brodsky discloses that the particular database from which supplemental content may be retrieved may be remote or local databases which

comprise encyclopedias. Wu discloses that information may be retrieved from remote information sources over the Internet. The combined references, however, do not particularly disclose or preclude the particular usage of a search engine as claimed. The Mighdoll et al. reference discloses a system for caching requested Internet based content in order to improve response times associated with the retrieval and display of information. In particular, the reference discloses that "in response to supplemental content . . . not being found at the content source" or local proxy "the system searches a global information network for supplemental content. . . and retrieves the supplemental content from the global information network for storage in the interactive television system" (Figure 6; Col 8, Line 28 – Col 10, Line 54). Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made so as to modify the combined teachings so as to employ a tiered retrieval process involving caching at a local "content source" wherein if a particular request cannot be locally fulfilled then a "global infrastructure" request is relied upon for the purpose of improving latency requirements associated with the download of requested documents associated with the preprocessing of (Mighdoll et al.: Col 1, Line 54 – Col 2, Line 7).

In consideration of claims 48-50, the combined references in conjunction with an "information request" by the "interactive television system" so as to particularly retrieve articles via an Internet based do not explicitly disclose nor preclude that the "the identifier comprises one of a media access control (MAC) address and in Internet protocol (IP) address" which subsequently facilitates "sending the identified from the supplemental content from the content source to an interactive television system associated with the

identifier". Applicant's admission of fact provides evidence as to the usage of "one of a media access control (MAC) address and in Internet protocol (IP) address" in connection with routing information to client terminals is notoriously well known in the art. Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made so as to employ "one of a media access control (MAC) address and in Internet protocol (IP) address" in connection with the "information request . . . of the interactive television system" for the purpose of providing a means for "sending the identified supplemental content from the content source to an interactive television system associated with the identifier" in accordance to the standard TCP/IP protocol utilized by the Internet.

14. Claims 55 and 60 are rejected under 35 U.S.C. 103(a) as being unpatentable over Landis et al. (US Pat No. 5,428,400), in view of Brodsky (US Pat No. 5,809,471), in view of Wu et al. (US Pat No. 6,326,982), and in further view of Reese (US Pat No. 6,374,237).

In consideration of claim 55, the combined reference discloses the particular usage of "user preferences", however, the reference does not disclose that the "set of user preferences is included with the information request". In an analogous art pertaining to searching and retrieving supplemental content, the Reese reference discloses a system and method that utilizes "user preferences", the Reese reference discloses a method for utilizing "user preferences" in conjunction with performing a search operation (Reese: Col 1, Lines 55-63). Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to to employ "user preferences" in associated with "determining which supplemental content is to be pre-cached prior to receiving the user request" for the

purpose of advantageously providing the user with supplemental information which is not only relevant to the current programming being displayed, but is also of particularly meaningful to the user assuming such information has not already been provided (Reese: Col 1, Lines 22-39). For example, taken in combination, a user requesting further information on "France" would subsequently receive supplemental content advantageously relevant to the user's demographics (as opposed to generic demographics) pursuant to the topic of "France" (Reese: Col 4, Lines 35-47).

In consideration of claim 60, the Reese reference discloses the usage of "at least one user preference stored in response to historical analysis of user selections of supplemental content" to be used for filtering responses in accordance with a profile when responding to a user generated search request (Col 2, Lines 49-65; Col 3, Lines 20-32 and 45-58; Col 8, Lines 26-53). Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made so as to use "at least one user preference stored in response to historical analysis of user selections of supplemental content" in conjunction with pre-cached retrieval for the purpose of providing means for filtering retrieved search results into a format that is more meaningful to the user (Reese: Col 1, Lines 22-51).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Scott Beliveau whose telephone number is 571-272-7343. The examiner can normally be reached on Monday-Friday from 8:30 a.m. - 6:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John W. Miller can be reached on 571-272-7353. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Scott Beliveau
Examiner
Art Unit 2614

SEB
March 9, 2006